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Abstract
Recently Customer Relationship Management is one of the hottest issues in cooperations. In order to properly arrange the positions of products, Cooperations need to understand customers' shopping behaviors and the associationships between products. In this way, we can increase the customers' satisfaction and decrease the searching time during shopping. Besides, we can increase the quantity of purchase products and the profits. Thus, it is very important to use the technology of data mining to find the useful association rules and to provide the cooperation's decision supports. The Apriori algorithm is one of the most frequently used algorithms. But the Apriori algorithm has some major defects: First, the Apriori algorithm will produce large amounts of candidate itemsets during extracting the frequent itemsets from large database. Second, frequently scanning whole database. Third, when minimum support change must again mine. Thus, lead to the Apriori algorithm inefficient performance. Many researches try to improve the performance of the Apriori algorithm, but still not escape from the frame of the Apriori algorithm and lead to a little improvement of the performance.

In this paper we propose QPD and QDI to find the association rules from large transaction databases which escape the frame of Apriori algorithm. The merits of QPD and QDI algorithm are: 1.In data mining process it only needs to scan whole transaction database once.2.minimum support change does not have again mining. 3. does not need to rescan the original database, to mine the association rules for the incrementally growing databases.

Above knows. By this algorithm doing association analysis, its performance surpasses Apriori-based algorithms. In association rule's reasoning process, it won't duplicate produce the unnecessary candidate items. Therefore it can fast obtain the information of correct and effectiveness. From this can reduce the time cost, the fast reflection market demand.That greatly.promotes the competitive advantage.
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